

What Is Claimed Is:

1. In a surgical needle for fracturing tissue at an operating port through the generation of shockwaves due to plasma formation from the optical breakdown of a target on which laser pulses from a laser beam impinges, the improvement comprising:

the operating port positioned at the distal end of the needle,

the target having a wall mass which extends immediately proximal of the distal most portion of the operating port,

the needle having a sidewall which is unitary and an aspirating channel having a smooth surface.

2. The surgical needle of claim 1 wherein:

said operating port is substantially on the first side of a plane longitudinally bisecting the surgical needle, and said target is substantially on the second side of said plane.

3. The surgical needle of claim 1 wherein: said operating port is substantially circular.

4. The surgical needle of claim 2 wherein: said operating port is substantially circular.

5. The surgical needle of claim 1 wherein: said target has a target surface which is a plane at approximately 45 degrees to the axis of said aspirating channel.

6. The surgical needle of claim 2 wherein: said target has a target surface which is a plane at approximately 45 degrees to the axis of said aspirating channel.

7. The surgical needle of claim 4 wherein: said target has a target surface which is a plane at approximately 45 degrees to the axis of said aspirating channel.

8. The surgical needle of claim 1 wherein: said target and said operating port extend over approximately the same longitudinal distance of the surgical needle.

9. The surgical needle of claim 2 wherein: said target and said operating port extend over approximately the same longitudinal distance of the surgical needle.

10. The surgical needle of claim 3 wherein: said target and said operating port extend over approximately the same longitudinal distance of the surgical needle.

11. The surgical needle of claim 4 wherein: said target and said operating port extend over approximately the same longitudinal distance of the surgical needle.

12. The surgical needle of claim 5 wherein: said target and said operating port extend over approximately the same longitudinal distance of the surgical needle.

13. The surgical needle of claim 8 wherein: said target and said operating port extend over approximately the same longitudinal distance of the surgical needle.

14. The surgical needle of claim 1 wherein:
said operating port has a central axis and
said needle has a central axis, said central axis of said
port and said central axis of said needle being at
approximately 30 to 45 degrees to one another.

15. The surgical needle of claim 2 wherein:
said operating port has a central axis and said
needle has a central axis, said central axis of said port
and said central axis of said needle being at
approximately 30 to 45 degrees to one another.

16. The surgical needle of claim 3 wherein:
said operating port has a central axis and said
needle has a central axis, said central axis of said port
and said central axis of said needle being at
approximately 30 to 45 degrees to one another.

17. The surgical needle of claim 5 wherein:
said operating port has a central axis and said
needle has a central axis, said central axis of said port
and said central axis of said needle being at
approximately 30 to 45 degrees to one another.

18. The surgical needle of claim 13 wherein:
said operating port has a central axis and said
needle has a central axis, said central axis of said port
and said central axis of said needle being at
approximately 30 to 45 degrees to one another.

19. The surgical needle of claim 1 having an
optical fiber for conveying the laser pulses, wherein:
the sole turbulent inducing structure in the aspirating
channel proximal of said operating port and said target
is the optical fiber.

20. The surgical needle of claim 18 having an optical fiber for conveying the laser pulses, wherein: the sole turbulent inducing structure in the aspirating channel proximal of said operating port and said target is the optical fiber.